

# City of Ridgecrest Infrastructure Committee

## New Wastewater Treatment Plant Project Update

August 25, 2016



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# Where we are.....

- Completed Facility Planning
  - ▣ 2 site alternatives under consideration
- Completed financial studies and adopted new sewer rates
- Completed 30% Plans
- Completed and Certified EIR
- Prepared preliminary application for CWSRF loan
- Navy has prepared new easement maps and legal descriptions with draft grant

## Next steps..... .

- Final site selection
- File Notice of Determination for EIR
- Submit Technical, Environmental and Financial packages to CWSRF
- Finalize easement/use negotiations with Navy
- Apply for Waste Discharge Permit from Water Board
- Authorize final design services

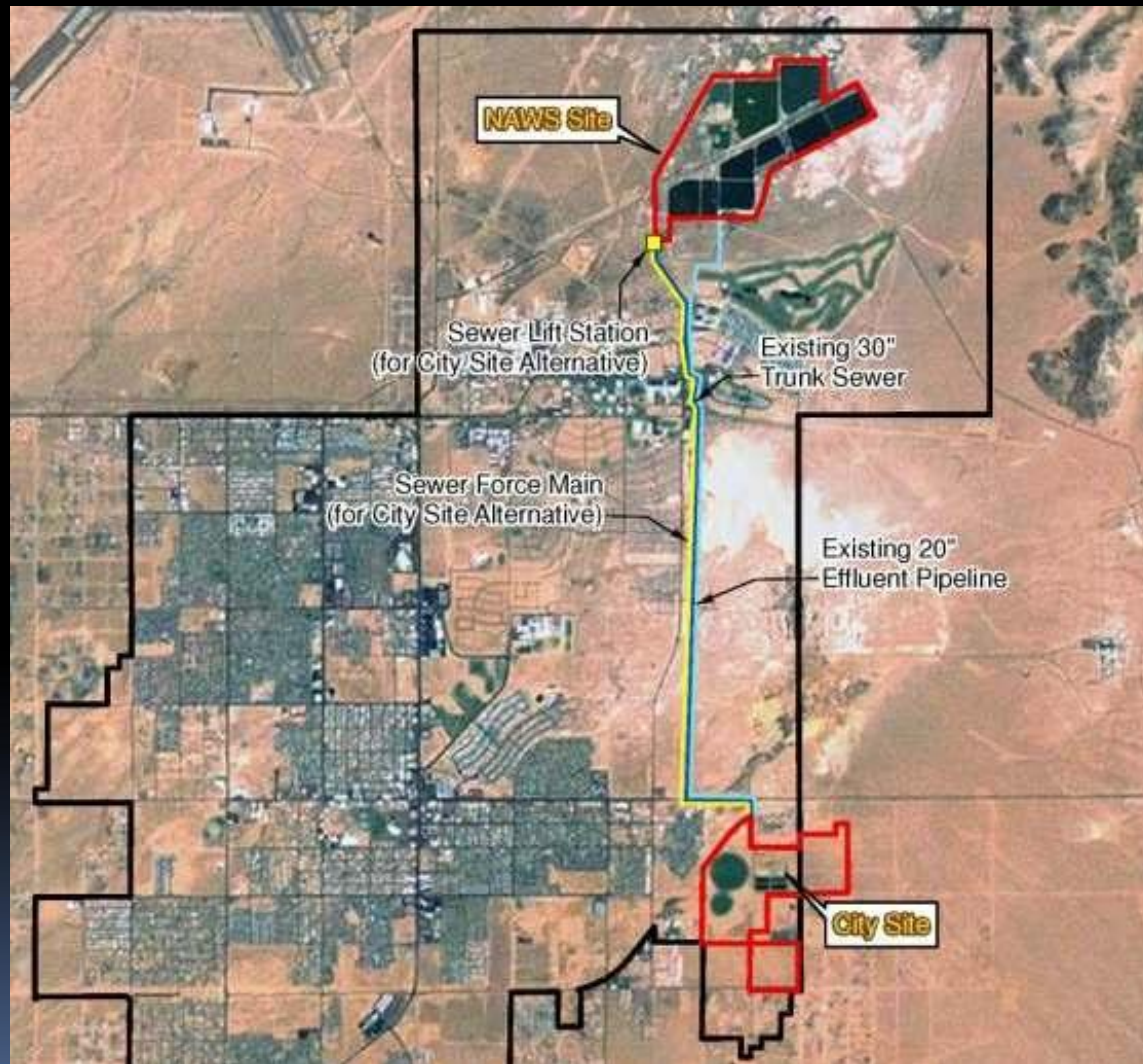
# Recycle Water

- Recycle water component of the project needs further development
- Green projects get higher funding priority
- Recycle water study is recommended to determine demand, availability, cost and best use
- Identify and Negotiate with Potential Recycle Water Users

# Proposed Design Capacity

- Phase 1 (2030)
  - AAD 3.6 mgd
  - ADMM 4.0 mgd
  
- Phase 2 (2050)
  - AAD 5.4 mgd
  - ADMM 5.9 mgd

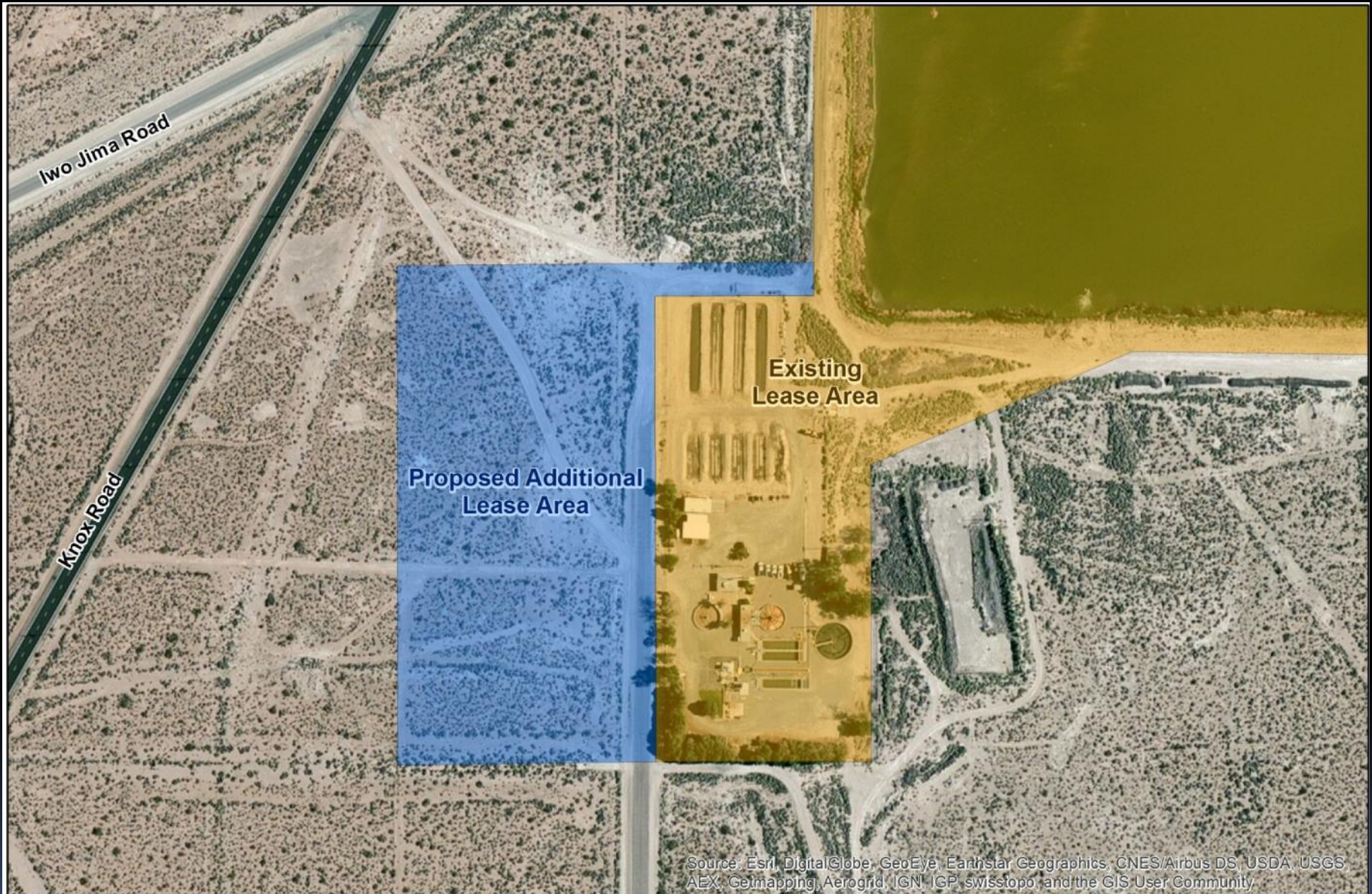
# WWTP Location Alternatives



# WWTP Site Alternatives

- China Lake NAWS Site
  - Adjacent to existing WWTP & majority of disposal ponds
  - On easement granted by Navy
- City Site
  - Site of original City WWTP
  - On land owned by City
  - Site of some disposal ponds & alfalfa irrigation





0 100 200  
Feet



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#### Legend

- Existing Lease Area
- Proposed Additional Lease Area

**Figure 1-2**  
Existing & Proposed  
NAWS Leased Land  
City of Ridgecrest





## China Lake NAWWS Site

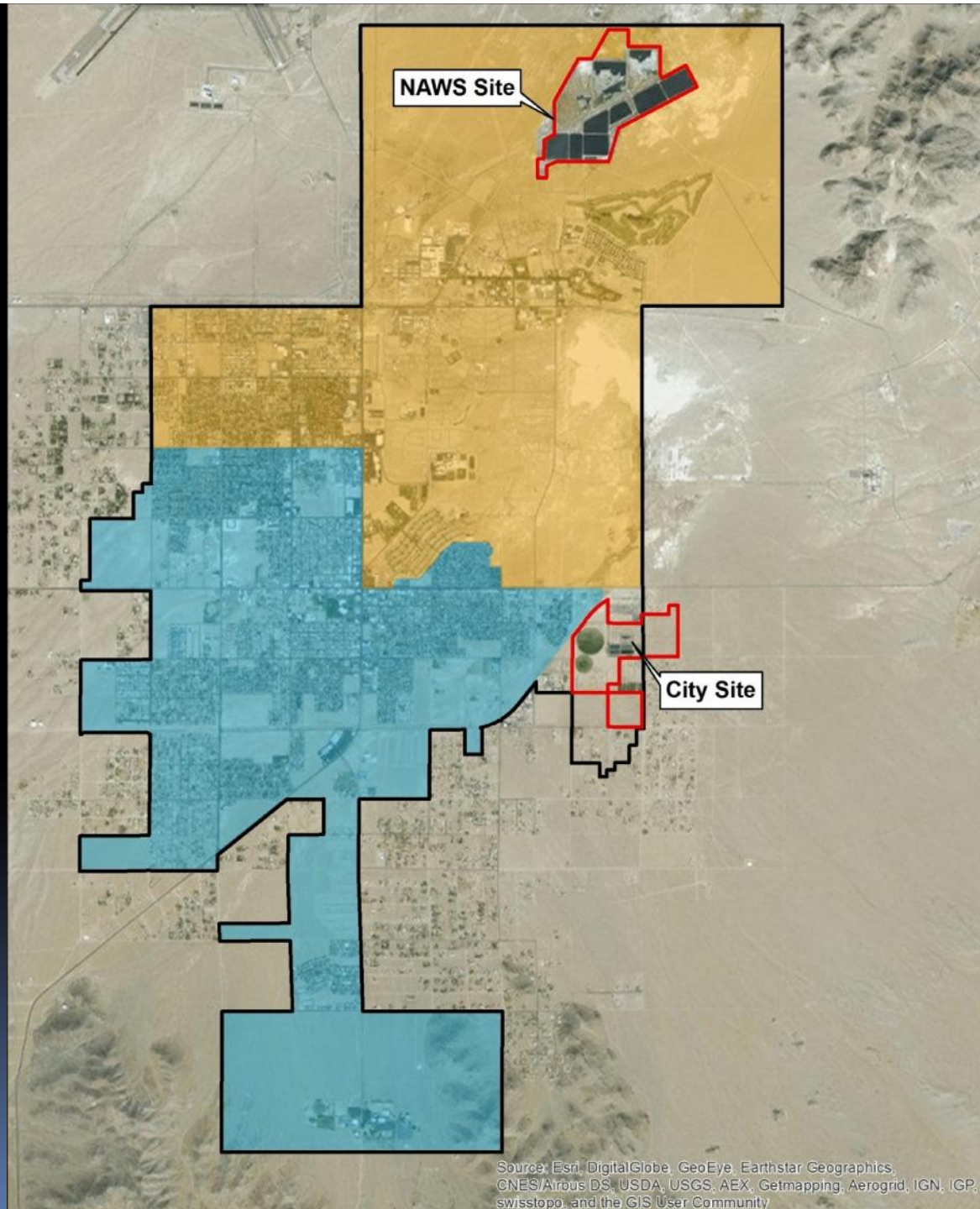
- Adjacent to existing WWTP
- Sits on easement from Navy
- Can intercept all flow without lift stations
- Isolated and secure
- Requires daily entry through base security gates
- Requires pumping through existing force main to City site for effluent disposal





## City Site

- Requires Lift Station at NAWS site and 4 mile 16-inch Force Main
- Requires New Sewer to Intercept Flow at California and Lumill
- Closer to Residents
- More Convenient to Access
- NAWS Site Still Needed for Effluent Disposal
- Located 70 feet Higher than NAWS Site
- Requires pumping through existing force main to NAWS site for effluent disposal





# Present Effluent Disposal/Re-use

- Re-use/Recycling
  - ▣ Golf Course at NAWS: 750 AF per year ( 500 AF per year actual)
  - ▣ Spray Irrigation of Alfalfa
- Disposal Ponds at NAWS and City Sites
- 20" Effluent Transfer Pipeline
  - ▣ Connects NAWS and City Sites

## China Lake NAWWS Site- Cost Secondary Treatment

- Construction Cost \$34.0 million
  - Engineering/Contingency 10.0 million
- 
- Total Project Cost \$44.0 million

# City Site Costs Secondary Treatment

■ Construction Cost	\$38.5 million
■ Engineering/Contingency	11.5 million
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■ Total Project Cost	\$50.0 million

# Tertiary Treatment

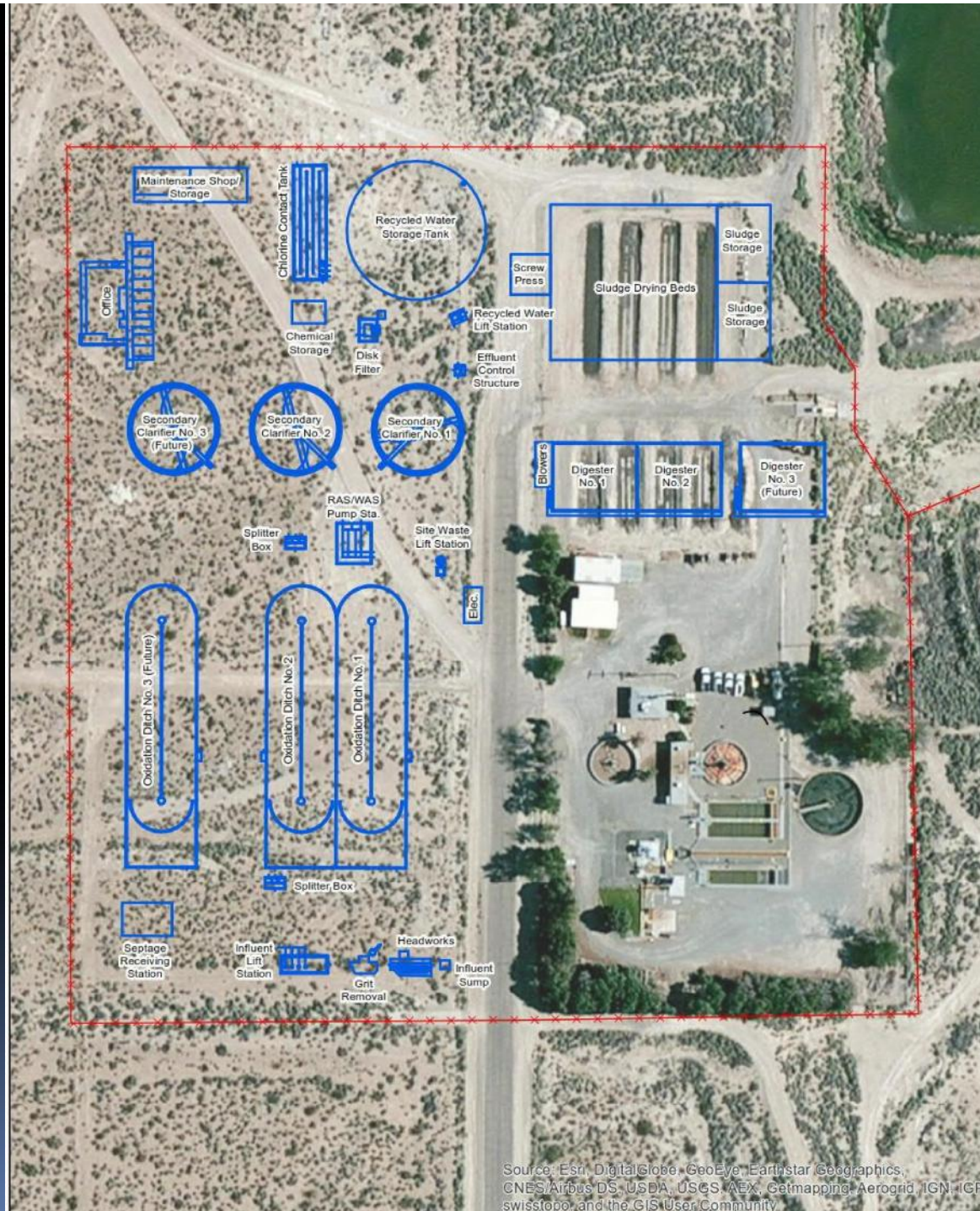
■ Construction Cost	\$6.3 million
■ Engineering/Contingency	\$1.9 million
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■ Total Project Cost	\$8.2 million

## WWTP Expansion- Phase 2

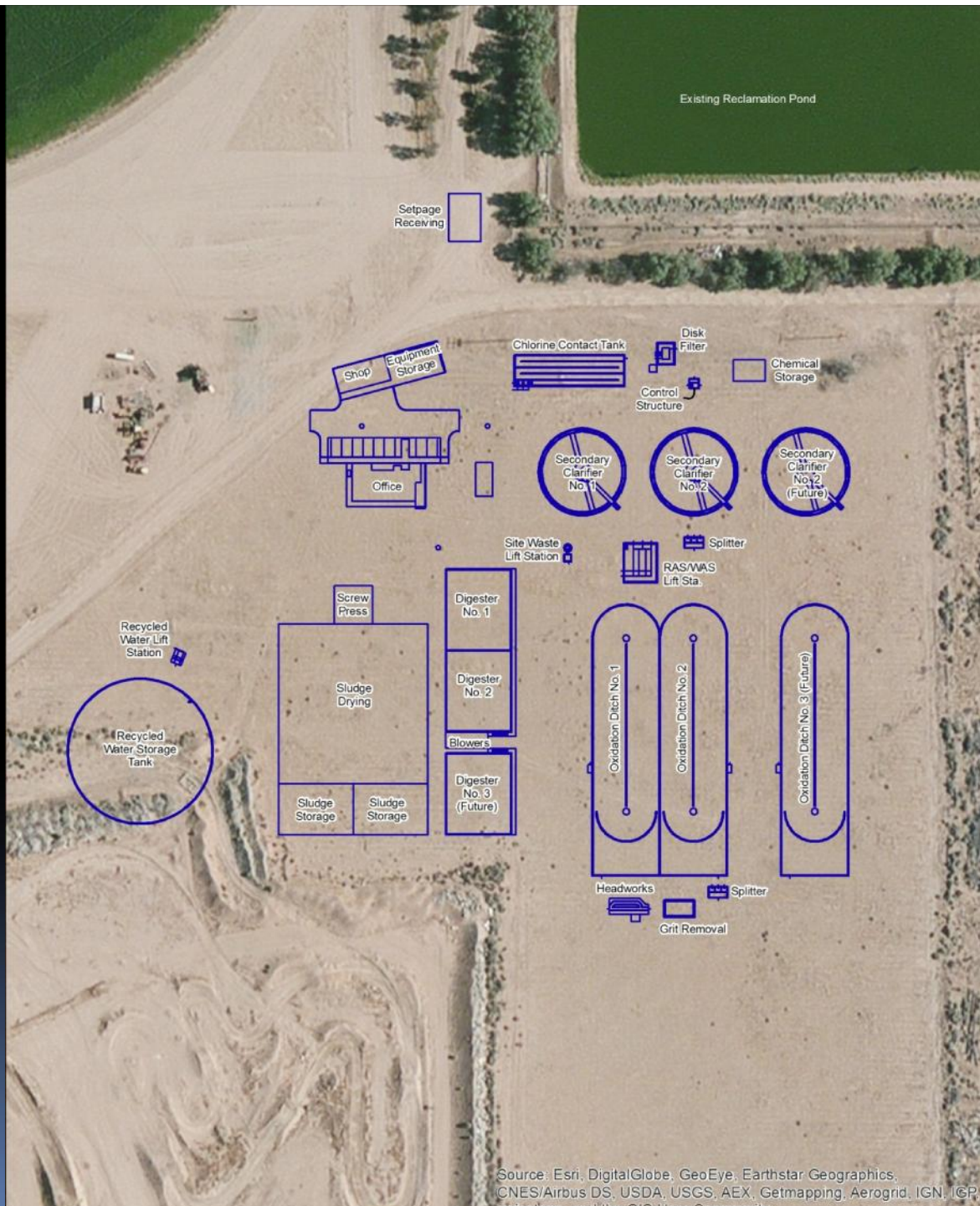
### Expansion to 5.4 mgd

- Construction Cost \$9.2 million
  - Engineering/Contingency \$2.8 million
- 
- Total Project Cost \$12.0 million









## Recommended Site

- Existing NAWS site highest ranked based on technical/cost analysis
- But.....other non technical, non monetary factors should be considered
- It is contingent on a new long-term agreement with the Navy
  - Necessary to secure financing
- Environmental analysis completed & both sites are environmentally acceptable (per CEQA)

# Recycled Water

- China Lake Golf Course
- Parks and School Athletic Fields
- NAWS Turf and Irrigated Areas
- Indirect potable re-use
- Other???
- Requires Addition of Tertiary Treatment
  - Filtration
  - Disinfection
  - Will provide for unrestricted use







# Upcoming Actions Items

- CEQA – EIR Completed, City to Select a Preferred Site
- Complete Negotiations with Navy if NAWWS Site is Selected
- Apply for Waste Discharge Permit
- Apply for CWSRF Loan Funds
- Authorize Final Design
- Identify and Negotiate with Potential Recycle Water Users

# Questions and Discussion

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